

# Service Area Plan

## Department of Health

### Public Health Toxicology (50805)

---

## Service Area Background Information

### Service Area Description

This service area implements the Virginia Toxic Substances Information Act by assessing, advising, and communicating health hazards of chemical and certain biological agents which pose a threat to human health and the environment. Products and services include:

- Advise the Governor, General Assembly, other state agencies, and local governing bodies on matters pertaining to chemical exposures posing a threat to public health or the environment;
- Evaluate information regarding toxicity of chemicals and certain biological agents and determine the risk to human health and the environment;
- Disseminate information concerning toxic substances to other state agencies, political subdivisions of the Commonwealth, health professionals, the media, and the public by communicating the risk of chemical exposure through documents, technical reports, information sheets, advisories, health alerts, and press releases;
- Investigate potential human health effects associated with exposure to chemical and biological agents in the environment.
- Conduct surveillance of diseases related to chemical exposure;
- Develop health risk assessments for specific chemical exposures via air, water, and food; and
- Make recommendations to prevent exposure of citizens to chemical substances including fish consumption advisories.

### Service Area Alignment to Mission

This service area directly aligns with VDH's mission of promoting and protecting the health of Virginians by assessing, advising, and communicating health hazards of chemical and certain biological agents which pose a threat to human health and the environment.

### Service Area Statutory Authority

Chapter 6, Article 9 of Title 32.1 of the Code of Virginia provides the authority and defines the activities of this Service Area. Section 32.1-240 designates VDH as the state toxic substances information agency. The activities listed under the service area description are mandated by Sections 32.1-241 and 32.1-248.01. Section 32.1-245 requires VDH to submit a biennial report to the Governor and General Assembly on all matters relating to toxic substances in the Commonwealth.

# Service Area Plan

## Department of Health

### Public Health Toxicology (50805)

---

#### **Service Area Customer Base**

Customer(s)	Served	Potential
Citizens of the Commonwealth, especially those affected by exposure to chemicals, biological, and radiological agents	44,000	7,400,000
Colleges/Universities	10	103
Commercial Fishermen	2,900	3,000
Environmental Groups and Associations	5	106
Federal Agencies	15	20
Health Professionals	550	21,000
Hospitals	35	94
Industry using or producing chemicals	8,635	3,000
Laboratories	41	183
Legal Professionals	200	24,527
Legislators, federal	13	13
Legislators, state	140	140
Local Governments	135	135
Local Health Departments	119	119
Local Health Districts	35	35
Media	168	168
Occupational workers exposed to chemicals in their workplace	5,000	334,000
Recreational Fishermen	587,000	600,000
Schools	100	1,950
State Agencies	20	20

#### **Anticipated Changes In Service Area Customer Base**

- The number of requests for public health assessments will increase as Virginia's population increases.
- Security concerns and potential for acts of chemical, biological, and radiological terrorism will increase demand for VDH's involvement and collaboration with other environmental and law enforcement agencies.
- The increased demand for migrant laborers in farming and related agricultural industries will increase the number of workers exposed to agricultural chemicals and biological agents.

# Service Area Plan

## Department of Health

### Public Health Toxicology (50805)

---

#### **Service Area Products and Services**

- Respond to all constituents of the Commonwealth who have concerns regarding public health hazards from exposure to chemicals and certain biological agents.
- Produce fact sheets and information sheets concerning relative subjects, such as a local spill or identified environmental hazard, and disseminate to affected constituents.
- Post information on the VDH Web site to improve its accessibility to Virginians.
- Disseminate information to communities and work with local governing bodies to assess exposure, risk, and identify protective actions in relation to specific toxic substance occurrences.
- Issue Health Alerts through all available media when a toxic substance exposure has occurred or is imminent.
- Issue and monitor Fish Consumption Advisories throughout Virginia's waterways based on fish tissue sample analysis and degree of contamination.
- Monitor reports by physicians, hospitals, and labs to detect trends that suggest an increase in exposure to toxic substances.
- Maintain and analyze Childhood Elevated Blood Lead Level Database to collect incidence data for children with elevated blood lead levels.
- Conduct and disseminate statistical analyses of surveillance data pertaining to childhood elevated blood lead levels in order to better prevent or intervene as soon as a baby is born.
- Produce biennial report to the Governor and General Assembly on toxic substances in the Commonwealth.
- Produce the annual statewide childhood lead surveillance report.
- Provide technical assistance and guidance to other state agencies in the development of regulatory standards and guidelines governing chemicals.
- Conduct training for healthcare and environmental health professionals regarding potential health effects of exposure to toxic substances.
- Provide press releases and publications concerning health hazards and possible exposures within a community.
- Attend public meetings and forums throughout the state to answer citizens' questions and provide information related to health hazards.
- Review and evaluate hazardous waste permit applications and environmental impact statements for the Department of Environmental Quality.
- Review and evaluate emergency pesticide use applications for the Department of Agriculture and Consumer Services.

# Service Area Plan

## Department of Health

### Public Health Toxicology (50805)

---

#### Factors Impacting Service Area Products and Services

- Increase in industrial use and production of chemicals is expected to increase inquiries and concerns about toxic substances
- Increase in emission and discharge of chemicals from industry is expected to increase public awareness about toxic substances and would increase public health concerns
- Trend to greater use of safety gear in occupational environments
- Increase in education and training for occupational workers may reduce occupational exposure to toxic substances
- Increase in number of landfills will generate more complaints and requests for public health assessments
- An increase in accidental or intentional spills of chemicals may increase the number of responses to exposures
- Natural events such as hurricanes, floods, and storms
- Transportation accidents involving chemicals
- Fires or explosions involving chemicals may increase as the industrial activity increases
- Unusually dry weather conditions may cause an increase in forest fires and smoke
- Lengthy rainy season would increase the occurrence of molds in buildings
- Increase in the number of automobiles would result in air pollution (smog) and would increase the number of public inquiries regarding the health impact of pollutants
- Increase in level of education and public awareness of environmental issues and exposure to chemicals would increase public health concerns
- Extent of pesticide (insecticides, fungicides, herbicides) use
- Food importation practices
- International and interstate commerce
- Trend to greater use of alternative medicine and natural remedies
- Overuse and misuse of medicines
- New research and studies regarding health effects of chemicals
- Concerns and plans for acts of bioterrorism
- Acts of bioterrorism
- Need for coordination with law enforcement and homeland security officials

#### Anticipated Changes To Service Area Products and Services

- Greater need for services to be ethnically and linguistically diverse
- Greater focus on public education and awareness regarding exposure to chemicals
- Greater emphasis on dissemination of information through media and internet

#### Service Area Financial Summary

The sole source of funding for Public Health Toxicology is general funds. The general base budget is the prior year's legislative appropriation.

	<u>Fiscal Year 2007</u>		<u>Fiscal Year 2008</u>	
	General Fund	Nongeneral Fund	General Fund	Nongeneral Fund
<b>Base Budget</b>	\$450,230	\$0	\$450,230	\$0
<b>Changes To Base</b>	\$22,108	\$0	\$22,108	\$0
<b>SERVICE AREA TOTAL</b>	<b>\$472,338</b>	<b>\$0</b>	<b>\$472,338</b>	<b>\$0</b>

# Service Area Plan

## Department of Health

### Public Health Toxicology (50805)

---

## Service Area Objectives, Measures, and Strategies

### Objective 50805.01

***Assess health hazards of chemical, toxic, and certain biological agents which pose a threat to human health and the environment; provide information and recommendations as appropriate to abate or reduce potential health effects.***

Protection of the citizens from the dangers of toxic and hazardous substances includes evaluating human health risks from exposure to toxic and hazardous substances, ascertaining the relationship between exposure and disease, making recommendations to prevent exposure of citizens to toxic substances, and developing information for people who may be affected by the exposure. Protection of the public and workers from the dangers of exposure to chemicals, radiation, and biological agents is of critical importance to ensure the safety of Virginians. Exposure to hazardous and toxic substances can occur when high levels of these substances are ingested or breathed via contaminated food, drinking water, fish, and polluted air. Accidental or intentional spills of chemicals, transportation accidents, and fires at facilities using or manufacturing chemicals can cause situations where the public and workers are exposed to toxic and hazardous substances. Natural disasters such as heavy rains, floods, and hurricanes often contaminate residences and workplaces with mold and other biological agents. Dangers may be present due to improper conditions and use, or improper actions by workers handling toxic and hazardous substances.

#### **This Objective Supports the Following Agency Goals:**

- Collect, maintain and disseminate accurate, timely, and understandable public health information.  
( )
- Respond in a timely manner to any emergency impacting public health through preparation, collaboration, education and rapid intervention.  
( )
- Prevent and control exposure to toxic substances and radiation.  
( This objective is also aligned with Virginia's long term objective to inspire and support Virginians towards healthy lives and strong and resilient families.)

#### **This Objective Has The Following Measure(s):**

##### ● **Measure 50805.01.01**

***Timeliness of response to requests for public health assessments of exposure to chemicals and biological agents.***

**Measure Type:** Outcome

**Measure Frequency:** Annually

**Measure Baseline:** During FY06 the response time for each request was approximately 48 hours.

**Measure Target:** Respond to a minimum of 95% of public health assessment requests within 48 hours during FY07.

##### **Measure Source and Calculation:**

Requests and data for public health assessments are received by telephone, letters, email, and fax. Sources of exposure are identified and the status of at-risk population is determined. Exposure data are evaluated by conducting literature searches and utilizing reference books. Public health actions and recommendations are determined based on exposure data and other environmental factors. Responses are provided by telephone, letters, email, or fax. A log will be kept noting the date and time of each request received and the date and time of the response provided. Measure will be calculated based on that data.

# Service Area Plan

## Department of Health

### Public Health Toxicology (50805)

---

- **Measure 50805.01.02**

***Timeliness of evaluation of fish monitoring data.***

**Measure Type:** Outcome      **Measure Frequency:** Annually

**Measure Baseline:** During FY06 the data were typically evaluated within 15 working days of receipt from the Department of Environmental Quality.

**Measure Target:** Within 15 working days in minimum of 95% of evaluations during FY07.

**Measure Source and Calculation:**

The Department of Environmental Quality submits its fish monitoring data approximately every four months. The levels of toxic chemicals in fish from various water bodies are reported. These levels are compared with levels in fish that can be safely consumed. If the levels of toxic substances in fish exceed the safe levels, fish consumption advisories are issued recommending the number of meals of contaminated fish that can be safely consumed. Timeliness of the issuance of fish consumption advisories will be monitored by the dates the advisories are issued.

- **Measure 50805.01.03**

***Issuance of fish consumption advisories***

**Measure Type:** Outcome      **Measure Frequency:** Annually

**Measure Baseline:** If warranted, 95% of fish consumption advisories were issued within 30 working days during FY06

**Measure Target:** Maintain response time so that 95% of advisories are issued within 30 working days after receipt of data during FY07.

**Measure Source and Calculation:**

The Department of Environmental Quality submits its fish monitoring data approximately every four months. The levels of toxic chemicals in fish from various water bodies are reported. These levels are compared with levels in fish that can be safely consumed. If the levels of toxic substances in fish exceed the safe levels, fish consumption advisories are issued recommending the number of meals of contaminated fish that can be safely consumed. Timeliness of the issuance of fish consumption advisories will be monitored by the dates the advisories are issued.

**Objective 50805.01 Has the Following Strategies:**

- Determine the relationship between exposure to toxic substances and disease.
- Provide information about risks of exposure to toxic substances to the public, legislators, government agencies, healthcare professionals, and media.
- Provide effective and timely information and consultation to citizens' inquiries and concerns regarding toxic substances, biological agents, and radiation.
- Provide recommendations to prevent or minimize risk from exposure to toxic substances, biological agents, and radiation.
- Evaluate health risks from exposure to toxic substances, biological agents, and radiation.
- Provide relevant information to healthcare professionals to recognize, diagnose, and treat exposure related illness in their communities.
- Assist and collaborate with local, state, and federal agencies in responding to chemical and biological emergencies, including incidents of terrorism.
- Address community concerns regarding toxic substances in public meetings.

# **Service Area Plan**

## ***Department of Health***

### ***Public Health Toxicology (50805)***

---

- Provide technical assistance to other state and local agencies in developing standards and guidelines for toxic substances exposure.
- Evaluate fish monitoring data for chemicals, identify potential risks to human health from consumption of contaminated fish, and issue fish consumption advisories.
- Develop guidelines identifying the criteria and levels of concern for certain toxic substances that will be used in issuing a fish consumption advisory.
- Collaborate with the Virginia Department of Labor and Industry in investigating occupational exposure and its relationship with disease.
- Develop and disseminate information sheets, press releases, alerts, and public health assessments regarding the human health effects of chemicals.
- Provide a biennial report to the Governor and General Assembly on Toxic Substances in the Commonwealth.
- Monitor the prevalence of selected diseases or conditions within targeted populations of the Commonwealth caused by exposure to toxic substances.